

The *OSCILLATOR*

Volume 29 Issue 4
April 2006

Oregon Tualatin Valley Amateur Radio Club

The Oregon Tualatin Valley Amateur Radio Club is a special service club related to ARRL: The National Association for Amateur Radio. We seek to advance the Amateur Radio Service through:

- ⇒ Education and Training of new and licensed amateurs
- ⇒ Public Service and Emergency communication
- ⇒ Hobby nets, contests and meetings
- ⇒ Social events

Membership is available to anyone interested in amateur radio. A license is not required.

KK7TN PARAGRAPHS

Don Stettler KK7TN



Don is mowing his lawn and cutting weeds this month. Check back here in June.

POTPOURRI

Everett Curry W6ABM

Are you one of the amateur radio community who never seems to get on the air? That makes you part of the MAJORITY of hams. Its difficult to find the time to spend in pursuit of that rare one, or just to rag-chew with the regulars.

I'm part of this company. Most of my "ham radio" time is spent with service to the club, section, or just reading about the latest exploits of the experimenters, weak-signal advocates, and DXers. Even with my lack of air time, it's a great service and hobby.

In April, I broke the pattern with a weekend of on-and-off ham radio. I didn't do it alone. Months ago when our church men's group set dates for a retreat at Manzanita, I suggested we try to get the licensees among us to attend. We had five licensed hams and a prospect in one of the rental homes in Manzanita...complete with a station. See POTPORRI, Page 5

SuitSat-1 still in orbit

Tossed into orbit three months ago from the International Space Station, SuitSat-1 continues to orbit Earth--although its batteries are long since dead, Spaceweather.com reported this week that skywatcher Kevin Fetter videotaped SuitSat-1 as it passed over his Brockville, Ontario, Canada, home.

A spare Russian Orlan spacesuit equipped with a voice transmitter, slow-scan TV system, voice recordings and various sensors, SuitSat-1 was the brainchild of the Russian Amateur Radio on the International Space Station (ARISS) team. From the outset, radio signals from the unusual satellite were very weak due to an undetermined problem. Even so, SuitSat-1 remained in operation for more than two weeks, easily outlasting initial predictions that it would only transmit for about one week. The last confirmed reception of SuitSat-1's voice audio was on February 18.

Calling the project "tremendously successful," ARISS International Chairman Frank Bauer, KA3HDO, says SuitSat-1 captured the imagination of people around the world, despite its much-lower-than-expected signal strength.

SuitSat-1 will sink into Earth's atmosphere and disintegrate in a flash of fire.

OTVARC ADDRESS:

880 NE 25th Ave Ste 2-160
Hillsboro OR 97124-6258

CLUB MEETING

WEDNESDAY, May 10

We meet on the second Wednesday of the month at the Beaverton Elks' Lodge, 3500 SW 104th Ave, Beaverton. Meetings begin at 7:00 PM. Guests are welcome. Come at 6:00 PM to enjoy a no-host dinner from the Elks' Buffet.

See you on May 10th. Bring or invite a guest. Sit with a member with whom you aren't acquainted. There are some great stories in the club.

Happy May Birthday

1 Don Branda	N7DDK
1 Jim Graffy	AE7W
4 Richard Wiehrdt	WA7BND
6 George Bates	K7GWB
8 Kevin Bersch	KE7VIN
8 Robbin Heath	KD7MRU
14 Barb Bailey	KA7WTF
16 Willy Lund	KC7ICQ
18 Wally Boleen	KC7TB
19 Jim Shires	KD7LDR
23 Patricia Rickman	N7UUD
23 Kevin Curry	KA7KYQ
24 Stephen Coan	KA7MOW
25 Donald Copeland	W7DPV
25 Richard Morgan	KD7GIE
26 Sue Dauntless	KB7RHH
28 Barry Carlson	W7BLC
30 Joel Simmons	KE7ANV

Updates and corrections to
w6abm@arrl.net

SUNSPOTS AND DX

It's commonly assumed that world wide shortwave communications is limited during periods of low sunspot activity. This year, for 21 days in February, sunspot numbers were zero. At the same time overall solar activity was moderate to low. Recently announced predictions say that the start of the next sunspot cycle will be delayed, but the next maximum will be much higher, (as much as 50%) than the last one.

So what's an aspiring DXer to do? Whatever the propagation, *it doesn't matter*. That's right, it doesn't matter at all. When a DX station comes on the air on his schedule, or the contest weekend falls at the worst propagation time of the year, you still need to be there to work them. If you are not listening, then someone else will be.

Rather than worry about the affect of coronal holes, solar winds and sunspot numbers, concentrate on what you need to know about the practical use of propagation during the low portion of the cycle. The basic difference between high sunspots and low is the time of day and the choice of bands to try. The higher the sunspot number, the higher the band. Lower numbers, lower band.

Every Ham has a little DXer inside them. It's only natural to wonder how far and how well your equipment will work. You may want to see how far from the repeater your HT will work, how many zip codes or grid squares you can contact using VHF simplex or you may be working towards the Worked All States or DXCC awards on the HF bands.

A recent opportunity to pit the magic of Amateur Radio against solar minimum conditions came on the weekend of March 4th and 5th, during the ARRL sponsored *International DX Contest*. The contest ran from 4:00 PM PST Friday to 4:00 PM PST Sunday. During this 48-hour contest W/VE (US and Canadian) stations can work any DX station, (which includes Alaska and Hawaii) while DX stations work only W/VE stations. For this contest Amateur Radio Station KD7VIK went on the air, (with a mighty 100 watts to a dipole antenna) Friday evening just after 5:00 PM on 20-meters.

In just over 20 minutes, 3G1K (Chile), JA0JHA (Japan) and OH8X (Finland) were in the log. You couldn't ask for a more diverse sample, three countries in three different parts of the world, right at the start. Other priorities only allowed a couple of hours on the air. Returning to the shack late that night, 20-meters was dead, (as expected) so it was time to try 40-meters. Tuning across the General Class portion of the band only revealed loud static and shortwave broadcasters. What sounded like faint state-side pile-ups were heard through the static, but no DX responses were audible. Tuning down the band below the General Class frequencies did not work at first either. Then just below 7.100 MHZ, plenty of DX activity was found.

One of the first stations heard was located in the Dominican Republic; "CQ, CQ contest, *H13TEJ* listening 7.249, QRZed". Okay..... it was time to learn how to operate "split frequencies." A quick attempt using the radios "RIT/TX" knobs failed to span the difference. Being a firm believer in the "if, and only if all else fails, consult the directions" school of thought, it was time to find the manual. My HF transceiver has 13 knobs and 43 buttons. After a search through the radios manual and some experimenting I learned how to use two new, (to me anyway) buttons; "SPLIT" and "XCF".

With everything set-up (I hoped) and a quick listen on 7.249, where only static and an off-frequency broadcaster were heard, it was time to give "split"

Go To SUNSPOTS, Page 3

JUNE IS AMATEUR RADIO MONTH

There are two big events in June for amateur radio operators and those who are interested in becoming hams. Getting to know amateur operators is a great way to learn. SEA-PAC '06 is the Northwestern Division Convention. It is held at Seaside June 16 - 18. Go to seapac.org for more.

Field Day demonstrates amateur radio under emergency conditions. Numerous sites will be active in the Tualatin Valley June 24-25. Pick one and get involved. A GOTA station will be available (Get On The Air) at the OTVARC site. Watch the June OSCILLATOR for more on our site.

SUNSPOTS, from Page 2

operation a try. Waiting for the next QRZed, I keyed the mike with a quick; "Kilo Delta Seven Victor India Kilo". A couple of calls later and HI3TEJ was in the log. The next two hours were spent working a baker's dozen other Caribbean stations. A new lesson to be remembered here is that what we hear stateside on any given frequency may not be what's heard on the same frequency somewhere else.

Saturday morning 20-meters opened to Europe. Unfortunately 100 watts from the west coast didn't compete well with kilowatt stations from the east coast, so the list worked was a lot shorter than the list of stations heard. During early afternoon a propagation path opened to the Caribbean, Central and South America. East and west coast station success rates were about equal.

Late Saturday night 40-meters again yielded a few more contacts, including FY5KE, (French Guiana) the club station at the European Spaceport launch center.

Sunday morning brought better success into Europe including contacts with OM3PC, (Slovak Republic) G6PZ (England) and DP4K (Germany). It was easy to tell that many operators were more than a little tired after nearly two days on the air. Late in the morning 15-meters opened briefly but only added three new QSO's to the log. With a total of 25 different countries worked, 8 "new ones" were in the logbook to use towards the ARRL DXCC award. The QSL cards are in the mail and the sunspot numbers are still averaging near zero!

As the next solar cycle begins over the next year or two we can all look forward to more activity on higher frequency bands. In the meantime there's still a lot of DX fun to be had while we wait, if you know where to find it.

'73'

Ron O'Connor KD7VIK

[Our thanks to Ron KD7VIK, a regular contributor to THE OSCILLATOR.]

WORLDWIDE DISTRIBUTION



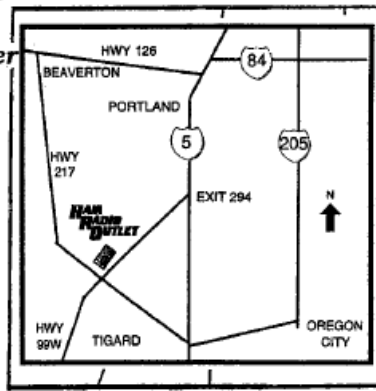
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FREE AMATEUR RADIO CLASSES

Amateur radio is now serving the country under the Homeland Security Umbrella! Remember how we helped the folks in Louisiana and the Gulf Coast?

Hams are being organized to help the Country in new ways. If you would like to be a part of this program, please consider getting your Amateur (Ham) Radio License.

Classes will be held over three weeks May 13th, May 20th, finishing May 27th, 1:00 - 4:00 pm each day. They are held at Tualatin Valley Fire & Rescue Station #67 on Farmington Road in Beaverton.

No textbooks required. All ages can be a part of this!

Please contact John Anderson, KA7BRZ at *82-503-452-2459 ka7brz@aol.com; or Janet Bell, WB7FJC at 503-648-4147, wb7fjc@arrl.net to enroll in the class.

The classes are a project of Oregon Tualatin Valley Amateur Radio Club.

HAMFESTS & CONVENTIONS

6 May 2006

Western Washington Section Hamfest

Stanwood, WA
 Stanwood Middle School
 9405 271st Street NW
 Stanwood-Camano ARC
 John McCann, N7MZ
 27312 56th Avenue NW
 Stanwood, WA 98292
 Talk-In: 145.19 (Open Repeater)
 Phone: 360-629-2921
 Email: huppert@whidbey.net

16 - 18 June 2006

SEA-PAC '06

ARRL Northwestern Division Convention

Seaside, Oregon
 Oregon Tualatin Valley ARC
<http://www.seapac.org>
Online Registration Open Now
 Box 25466
 Portland OR 97298-0466
 Will Sheffield N7THL
 Email: n7thl@arrl.net

22 July 2006

Coos County Hamfest

THE BARN (Bandon Community Center)
 Bandon, Oregon
 Coos County Radio Club
<http://www.coosradioclub.org>
Talk-In: 146.61 (no tone) & 146.52 simplex
 Ron Oliver, W7VU
 2041 King Lane
 Myrtle Point, OR 97458
 Phone: 541.572.5546

TRAVELERS'

Wagonmasters for the May TRAVELERS' event are Tom & Barb Bailey [503.538.2266]. It is expected be at Sunnyside. Give them a call for details.

Wanted

Need to borrow an antenna launching slingshot.

See Jim KB7ADH, 503.245.2518

VE EXAM SESSION

Monthly VE sessions continue on the first Saturday of each month.

Carl Clawson WS7L is our OTVARC VE team leader. The Club offers all exams on the first Saturday at 1:00 PM at Ronler Acres Fire Station, 4455 NW 229th Ave, Hillsboro, across from Hillsboro Stadium.

Pre-register for exams by contacting Carl, WS7L, at ws7l@arrl.net or by phone at 503.629.5796.

Check the OTVARC Web www.otvarc.org/ve for more information.

There are other exam opportunities in the area. Email to w7otv@arrl.net for locations and times.

BPL MEASURE IN THE US HOUSE

The House Energy and Commerce Committee's version of the Communications Opportunity, Promotion and Enhancement (COPE) Act includes an amendment requiring the FCC to study the interference potential of BPL systems. The panel voted April 26 to send the "telecoms rewrite" bill to the full House. "Outstanding news!" was the reaction of ARRL CEO David Sumner, K1ZZ. "This is a major victory for the ARRL," he exulted, noting that the amendment "received significant opposition" from utilities. Rep Mike Ross, WD5DVR (D-AR), proposed the amendment, and, with the support of Committee Chairman Joe Barton (R-TX), the committee agreed by voice vote to include it in the bill. "I believe it is imperative that the interference potential [of BPL] is thoroughly examined and comprehensively evaluated to ensure that deployment of BPL, which I do support, does not cause radio interference for Amateur Radio operators and first responders who serve our communities," Ross said.

Are your lips in need of a "spring tonic?"
 Radio operators around the USA spring
 forth to buy



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mcorourke@netzero.com

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LUNCH BUNCH

NO LUNCH BUNCH IN MAY

Questions?

Linda Sutton KC7YTD
kb7pvw@arri.net or 503.246.8879

Ham Rescued Off Rock

On Monday, April 24th just before 3:00 PM the Curry County Sheriff's Search and Rescue team rescued a man stranded by the rising tide on a rock at Harris Beach on Sunday night. According to a Curry County press release, at about 8:50 p.m. the day use host of Harris Beach reported to the Curry County Sheriff's Office that someone was flashing a light at her from the beach area. Minutes later, the Sheriff's Office received a call from a ham radio operator in Myrtle Point about a person stranded on a rock at Harris Beach.

Brandon Michaels, 39, of Rogue River, was found on a rock about a quarter-mile north of Harris Beach Day Use area. Michaels reportedly fell asleep on the rock earlier in the day and the tide rose during his sleep, stranding him. Brandon is an amateur radio operator, KD7WHY, and was carrying a handheld radio. Brandon called some repeater frequencies and was able to raise Don Crowder Jr., KD7YNX of Winston. Don could not access a telephone at the time, but he did call the Coos County Radio Club's repeater on Beaver Hill and hooked up with Dell Mansker, KE7EIB of Myrtle Point. Dell called 911, got the Coos County 911 center, was transferred to the Curry County center, and finally the Brookings Police Department. Brookings PD had been seeing a light flashing on the rock but did not know what that indicated until they got the added info.

Members of the Curry County Sheriff's Search and Rescue team waded out to Michaels and assisted him off the rock and back to the beach.

POTPOURRI, from Page 1

Actually, between the five of us, we could have set up several stations with the gear we packed into our cars "just in case." Even with all that stuff, we left some items intended for the weekend at home. However, in typical amateur radio style, we operated with what we had available.

We checked into the Oregon Emergency Net on Friday evening, listened for openings on 20, 40, and 80 meters, and worked to get a digital station on the air. Mostly we listened.

Our primary antenna was a Ventenna HF model intended for portable use. It tunes easily on each band, and our experiments proved it would work well on 20 meters when set up for 80! Our transceiver was an IC-706.

The digital operation proved elusive. Our prospect had his notebook computer along, so we loaded Digipan and worked to set up the sound card. The receive set up came along fine. Getting the transmitting side going was more challenging. The Tigertronics device worked fine, keyed the transceiver at request, and received stations well. We never did get a completed QSO on PSK31. After we tore it all down we figured out that one audio cable was mono and needed to be stereo. Oh well, we learned a lot about setting sound cards and using Digipan.

The five participants were: Gavin KC7CIL; Kevin KA7KYQ; Jim KB7ADH; Ron KD7VIK; and myself. Our prospect is Randy, who works in the security industry.

We're planning on doing it again!

DC POWER

We know how to make connections

Wes Allen, K7WWG President
665 SW 167th Ave. 503-531-4081
Beaverton, Oregon 97006

FROM THE EDGE OF SPACE

Hams in Germany and Portugal reportedly have received signals from the US Voyager 1 spacecraft <<http://voyager.jpl.nasa.gov/>> in March and April. On March 31, AMSAT-DL (Germany) radio amateurs at the Institute for Environmental and Future Research (IUZ) at Bochum Observatory used a 20-meter radio telescope dish to detect Voyager 1's 8.4 GHz signal. Using Doppler shift and sky positioning, the German team received the signal from a distance of 8.82 billion miles (14.7 billion km) -- nearly 100 times the distance from the sun to Earth. This is the first recorded reception of signals from Voyager 1 by radio amateurs.

Members of the AMSAT-DL/IUZ team included Freddy de Guchteneire, ON6UG, James Miller, G3RUH, Hartmut Paesler, DL1YDD, and Achim Vollhardt, DH2VA/HB9DUN. Assisting were Theo Elsner, DJ5YM of IUZ, and Roger Ludwig of Jet Propulsion Laboratory (JPL), as well as the Deep Space Network (DSN) tracking station in Madrid, Spain.

Luis Cupido, CT1DMK, in Portugal reported April 15 that he spent "two nights without sleep" to hear Voyager 1 at his QTH using a 5.6-meter dish. To detect the signal, Cupido says he had to acquire and integrate spectrograms over an extended period.

"I did several acquisition periods of 15 minutes (900 s), the minimum I would expect to see something," he said on his Web site: <<http://w3ref.cfn.ist.utl.pt/cupido/dsn.html>>, noting that any longer time period would be incompatible with his Doppler-shift correction scheme. "The receiver is operated at fixed frequency, and the Doppler variation was corrected by skewing successive spectrograms in software while accumulating."

He based positive identification of Voyager 1's signal on the fact that signal is "only visible for the right skew amount that corresponds to the Doppler variation as predicted by the relative velocity calculation."

Voyager 1 was launched in September 1977 to conduct close-up studies of Jupiter and Saturn, Saturn's rings and the larger moons of the two planets. Designed to last only five years, the probe is expected to send back astronomical information to NASA and JPL until at least 2020. Voyager 1 will study ultraviolet sources among the stars, and its fields and particles instruments will continue to search for the boundary between the sun's influence and interstellar space.

Armed Forces Day 2006

Armed Forces Day 2006 military/amateur activities set: The US Army, Air Force, Navy, Marine Corps and Coast Guard will cosponsor the annual Military Amateur Radio communications tests Saturday and Sunday, May 13-14 56th Armed Forces Day. Although the actual Armed Forces Day is Saturday, May 20, the Armed Forces Day on-the-air activities will take place earlier, to avoid conflicts with those who might be attending Dayton Hamvention, May 19-21.

The annual activity features traditional military-to-amateur crossband (ie, hams transmit on amateur frequencies and receive military stations on nearby military channels) SSB voice tests and copying the Secretary of Defense's annual Armed Forces Day message via digital modes (RTTY, PACTOR, AMTOR, PSK-31 and MT63). "These tests give Amateur Radio operators and Short Wave Listeners an opportunity to demonstrate their individual technical skills and receive recognition from the Secretary of Defense and/or the appropriate military radio station for their proven expertise," the US Armed Forces Day announcement says. QSL cards will be provided to those making contact with military stations.

Commemorative certificates will be awarded to those receiving and copying without error the digital Armed Forces Day message from the Secretary of Defense. The tentative schedule of on-the-air events -- including a list of participating stations, the Secretary of Defense's message transmission schedule and more information--is available on the US Army MARS Web site: [http://www.netcom.army.mil/mars/news/ARMED%20FORCES%20DAY%20\(2006\).doc](http://www.netcom.army.mil/mars/news/ARMED%20FORCES%20DAY%20(2006).doc).

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OTVARC 5TH WEDNESDAY RADIO CONTEST - May 31, 2006

- 1) Object: To work as many amateur stations as possible, in as many different 5-digit ZIP codes as possible, using **147.54 FM simplex**.
- 2) Contest Period: 2000 local through 2100 local (**8:00 – 9:00 PM PDT, Wednesday, May 31, 2006**).
- 3) Categories:
 - A) Single Operator: One person performs all operating and logging functions.
 - B) Single Operator QRP: Same as (A) with a power limitation of 5 watts.
 - C) Multi-operator: More than one person performing operating and logging functions.
- 4) Exchange: Operating 5-digit ZIP Code and Station Category (i.e. A, B, or C in #3 above).
- 5) Scoring:
 - A) QSO points: Count one (1) point for a complete single operator or multi-operator QSO. Two (2) points for each complete single operator QRP contact.
 - B) Multiplier: The total number of 5-digit ZIP codes worked.
 - C) Total score: Multiply the total number of QSO points by the multiplier.
- 6) Miscellaneous:
 - A) Partial QSOs do not count. Both calls, the full exchange, and acknowledgement must be sent and received.
 - B) While no minimum distance is specified for contacts, equipment should be capable of real communications (i.e. able to communicate over at least 1 km).
 - C) Use of repeaters and telephones to coordinate contacts is not allowed.
 - D) Rovers are not allowed as entries in the contest. Mobile stations can be contacted by stations in the contest. Mobile stations will not have a ZIP code and will not count toward the multiplier count.
 - E) Only one call sign may be used by any station.
- 7) Reporting:
 - A) Entries must be delivered to the contest organizers at or before the June 14, 2006 club meeting. To: Jim Schaeffer, KB7ADH by mail or email; **or**, to the Club Post Office Address.
 - B) Entries recorded on log sheets, or email, showing time of QSO, Call, Zip Code and Contest Category.
- 8) Awards:
 - A) Certificates will be awarded for the top winner in each station category.
 - B) Awards will be made at the club meeting July 12, 2006.

Contest Summary Sheet

Call Used _____ Operating ZIP Code _____

Other Operators _____

Category: A - Single Op B - Single Op QRP C - Multi-operator

Scoring:	Category A QSO's _____	x 1 = _____	
	Category B QSO's _____	x 2 = _____	
	Category C QSO's _____	x 1 = _____	
	TOTAL QSO Points _____		
	Times Number of Zip Codes x _____		
	TOTAL CLAIMED SCORE _____		

Signed _____ Date _____

Attach Log Sheets detailing all contacts, including Time, Call, ZIP Code, and Category.

**CLUB MEETING
MAY 10TH**

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Repeaters: 146.96 MHz
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Editor: Everett W6ABM
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